Contents

Preface v

List of Contributors xi

SESSION I—RECENT DEVELOPMENTS IN ULTRASONICS FOR PRESSURE VESSELS

US Developments in the Ultrasonic Examination of Pressure Vessels 3
G. J. DAU and M. M. BEHRAVESH (*USA*)

French Developments in the Ultrasonic Examination of Pressure Vessels 19
P. DUMONT, M. BIETH and J. P. LAUNAY (*France*)

Japanese Developments in the Ultrasonic Examination of Pressure Vessels 25
S. TAKAMA (*Japan*)

UK Developments in the Ultrasonic Examination of Pressure Vessels 49
M. J. WHITTLE (*UK*)

German Developments in the Ultrasonic Examination of Pressure Vessels 65
V. SCHMITZ and P. HÖLLER (*Federal Republic of Germany*)

Italian Developments in the Ultrasonic Examination of Pressure Vessels 83
V. REGIS (*Italy*)

Discussion on Session I 119

SESSION II—RECENT DEVELOPMENTS IN OTHER NDE TECHNIQUES

European Developments in Radiological Methods . . . 123
P. S. JEHENSON (*Italy*)

US Developments in Radiological Methods 139
W. E. FREEMAN and D. E. MACDONALD (*USA*)

European Developments in Eddy Current Methods . . . 163
D. CHIRON, F. BODSON and J. P. LAUNAY (*France*)

Indian Developments in Ultrasonics and Acoustic Emission Methods 171
A. K. RAO and C. R. L. MURTHY (*India*)

General Review of Developments in Acoustic Emission Methods 179
F. TONOLINI, A. SALA and G. VILLA (*Italy*)

US Developments in NDE for Steam Generators. 203
A. S. BIRKS, S. D. BROWN, A. E. CURTIS, III and C. S. WELTY, JR (*USA*)

European Developments in NDE for Steam Generators . . 209
B. S. GRAY (*UK*)

European Developments in NDE for Primary Pipework . . 219
P. J. MUDGE (*UK*)

European Developments in Theoretical Modelling of NDE for Pipework 227
J. A. G. TEMPLE (*UK*)

Discussion on Session II 269

SESSION III—ASSESSMENT OF NDE EFFECTIVENESS

A Review and Further Analysis of the Results of the Defect Detection Trials 275
R. A. MURGATROYD and D. FIRTH (*UK*)

Status of Stainless Steel Pipe Inspection in the US . . . 295
G. J. DAU, M. M. BEHRAVESH and S. R. DOCTOR (*USA*)

Discussion on Session III 307

SESSION IV—THE PISC II PROGRAMME

Summary of the PISC II Project: PISC II Report No. 1—June 1985 311
S. CRUTZEN (*Italy*)

Discussion on Session IV 347

SESSION V—FUTURE ASPECTS OF NDE EFFECTIVENESS STUDIES

PISC III Proposals 355
S. CRUTZEN (*Italy*)

Discussion on Session V 365

Index 367